

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (currently amended) An apparatus for immediately outputting a
5 response of a synchronous system to an asynchronous event, comprising:
a synchronous system configured to receive an asynchronous event at its
input to produce an output signal with a delay at its output;
an advanced calculation unit configured to calculate an output signal
10 identical to the output signal that will be output by the synchronous
system in response to the asynchronous event provided at an input
of the advanced calculation unit, the output signal being calculated
in advance of the synchronous system producing the output signal;
and
a switching device that selectively passes on the output signal from the
15 advanced calculation unit or the output signal from the synchronous
system.

2. (previously presented) The apparatus as claimed in claim 1, wherein
the switching device has at least two input connections, one of the at least
20 two input connections is connected to the output connection of the
synchronous system, and at least one of the at least two input
connections is connected to the output of the advanced calculation
unit.

25 3 (previously presented) The apparatus as claimed in claim 2, wherein
the switching device has a control connection, via which the input signals
intended to be passed on by the switching device are defined.

5 4. (previously presented) The apparatus as claimed in claim 1, wherein
the apparatus is configured to output the output signal from the advanced
calculation unit in response to the occurrence of the asynchronous
event.

10 5. (previously presented) The apparatus as claimed in claim 1, wherein
the apparatus is configured to output the output signal from the
synchronous system as soon as the output signal from the
synchronous system represents a response to the asynchronous
event.

15 6. (previously presented) The apparatus as claimed in claim 1, wherein
the synchronous system is configured to output the output signal within a
first period of time to provide the advanced calculation unit a
sufficient amount of time after the first period of time to calculate an
output signal to a next asynchronous event at its input.

20 7. (previously presented) The apparatus as claimed in claim 1, wherein
the advanced calculation unit is configured to complete advanced
calculations to a next asynchronous event before the next
asynchronous event occurs.